

## Academic workload implications of assessing student learning in work-integrated learning

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Assessment of student learning is a crucial part of quality work-integrated learning (WIL), yet presents some significant challenges for WIL practitioners. Assessment of WIL differs to assessment in classroom based courses because of the complexities of assessing the more holistic nature of learning in WIL, as well as (in many cases) managing the involvement of an external partner in the assessment process. This paper investigates academic workload implications of WIL assessment for staff at an Australian university. Over two years 34 WIL courses were surveyed, with 30 staff interviewed over a wider three-year period. Analysis of survey data reveals assessment of student learning is the largest single contributor to academic workload in WIL courses, with qualitative data providing some insight into the reasons for this. This paper reports findings from the study, noting implications and recommendations for practice, policy and future research. (*Asia-Pacific Journal of Cooperative Education, Special Issue, 2017, 18(2), 167-183*)

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Universities both within Australia and internationally are scaling up their work-integrated learning (WIL) initiatives with a view to promoting employability, work readiness and citizenship outcomes for their graduates (Smith, Ferns, & Russell, 2014; Smigiel, Macleod, & Stephenson, 2015; Sachs & Clark, 2017). The scaling up of WIL has prompted discussion around the development and sustainability of such programs, given anecdotal evidence of the significant workload implications of this form of student learning for university staff.

WIL is not specifically accounted for in many academic workload models (Emslie, 2011) and there is a scarcity of research explicitly investigating workload associated with WIL design and delivery (Clark, Rowe, Cantori, Bilgin, & Mukuria, 2016). The few available studies tend to focus on the workload implications of particular types of WIL. For example, Bulot and Johnson (2006) investigated delivery of service learning courses, estimating that workload commitments could require up to 10 extra hours a week (4.5 hours/week on average). More recently, Acton, Chipman, Lunden, and Schmitz (2015) investigated faculty workload associated with simulations in surgical education. Sixty percent of surgical program directors reported a slight increase, and 33% reported a significant increase to the average faculty member's workload, following the introduction of simulation requirements. While these studies shed light on the workload implications of some particular forms of WIL, they are not necessarily representative of the great diversity of delivery and assessment modes in WIL. WIL can encompass a range of experience and practice based activities including internships, teacher practicums, project work, simulations, international/clinical placements, and mentoring, each of which can entail very different approaches to curriculum design, teaching, assessment, student preparation and support. In light of the evidence gap, there is a need to better understand the impact of various models and/or modes of WIL delivery on academic workloads.

In response to the above issues and lack of publicly available information (in both literature and practice) on the workload implications of WIL, a study was initiated at an Australian

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university to systematically collect data on the type and amount of work involved in teaching, administering and supporting WIL courses across a range of models and delivery modes (Clark et al., 2016). This paper reports findings relating to academic workload associated with one aspect of WIL delivery – assessment of student learning – sourced from the broader study.

#### *Assessment and Academic Workload*

Assessment presents a number of challenges in WIL, not least of which include its impact on staff workloads (Bates, 2010, 2011; Emslie, 2011; Smigiel et al., 2015; Orrell, 2011; Peters & Academica Group Inc., 2012). However, a lack of evidence on the amount of time involved in assessment of student learning, as well as other aspects of WIL teaching, makes “it difficult to estimate the exact resource requirements, costs and skill sets associated with the design and delivery of WIL experiences” (Clark et al., 2016, p. 3). Beyond WIL, assessment is also thought to be the most time intensive aspect of teaching in higher education (Race & Pickford, 2007), although again there is a paucity of evidence to support this claim. A small study by Ferns (2011) is one exception. She found that reported average times for common assessments in general undergraduate courses (essays, research assignments and exams) ranged between 0.3-0.5 hours per assessment. However, assessment could take anywhere up to 1.8 hours per assignment, depending on the type of assessment task, with the greatest variability occurring with essays, research assignments and oral presentations. Fern’s study did not include courses with a WIL component, however, and assessment of student learning in WIL is thought to be even more resource intensive and time consuming than that associated with classroom based teaching, although again much of this evidence is anecdotal (e.g., Bates, 2011; Patrick et al., 2008; Peters & Academica Group Inc., 2012).

Bates (2010, 2011) in Australia and Peters and colleagues (2012) in Canada both identified a range of tasks involved in WIL delivery. While they did not measure the actual workload hours associated with these tasks, they recognize workload tasks which are unique to WIL, as well as tasks which are also part of traditional classroom based teaching, but which can entail a higher level of time investment in WIL courses. Assessment featured in both studies. Peters and colleagues (2012) report that faculty involved in teaching a course with a WIL component engage to a greater extent in strategies to assess students’ ability to perform real-world tasks than faculty who teach in a program without WIL or those who have had no involvement in the WIL component of the course. Bates (2010, 2011) identified industry-based assessment, specifically the continuous contact needed with industry partners to ensure the timely return of industry-based assessments for finalization of student grades, to be a unique feature of (many forms of) WIL workload.

#### *Assessment of Student Learning in WIL*

There are a number of factors which potentially contribute to increased workload associated with assessment of student learning in WIL. Firstly, while assessment is a fundamental part of all university courses, WIL activities require diverse and complex assessment strategies to assess learning that is more holistic in nature (Brodie & Irving, 2007; Winchester-Seeto & Rowe, 2017). Because of this, as well as the need to support quality outcomes for students and industry/community partners, there can be a stronger focus on formative assessment which is developmental, as opposed to summative assessment which serves to demonstrate outcomes attainment. Research suggests formative assessment can increase the workload of tutors although perhaps not as much as they might perceive (López-Pastor, Pintor, Muros, & Webb,

2013). A key part of formative assessment is the provision of effective feedback, another crucial (and potentially time consuming) component of WIL (Ferns & Moore, 2012; Palermo, et al., 2014; Peach, Ruinard, & Webb, 2014) which helps students to *inter alia* clarify their career choices (Bilgin, Newbery, & Petocz, 2015) and achieve a range of other outcomes.

Secondly, assessment needs to be responsive to the variability of workplace/community learning. The 'situatedness', unpredictability and authenticity of each WIL context means that the same assessment task cannot always be prescribed to students undertaking the same course. A related consideration is that WIL does not necessarily suit exams, quizzes and other traditional methods of assessment (Bilgin, Jersky, & Petocz, 2011; Winchester-Seeto & Rowe, 2017; Yorke, 2011). As a result, a diverse range of assessment strategies may be required to meet the unique context and situation (Bates, 2010; Connaughton, Edgar, & Ferns., 2014; Patrick et al., 2008; Winchester-Seeto & Rowe, 2017). In an audit of assessment tasks used in WIL courses at the same Australian university where the present study was conducted, Winchester-Seeto and Rowe (2017) identified the most commonly used assessment strategies (Figure 1). In both studies the assessment types most utilized to assess students' learning were individualized, for example, individual reports, written reflections, project management plans, online posts and host supervisor reports which, compared to exams or quizzes, are likely to take significantly longer to assess.

The involvement of external partners in WIL varies (Ferns & Moore, 2012) depending on the model of WIL, availability of the host supervisor and nature of activity that students are undertaking, but can be quite extensive. Workplace reports are a common feature of professionally accredited practice based courses such as nursing, teaching, social work and engineering, but are also used in other forms of WIL. Host supervisors may be required to make judgements about student proficiency / competence in order to meet professional accreditation standards, or their role might focus more on the provision of ongoing feedback to students about their performance and broader capability development (Peach et al., 2014). Several studies have noted the reluctance of partners to engage with assessment for a variety of reasons (Mackaway, Winchester-Seeto, Coulson, & Harvey, 2011; McNamara, 2013), which again has workload implications for academic staff who may be required to provide additional support to enable industry partners to fulfil these expectations of their role. As we argue later in this paper, even when partners are not formally integrated into assessment practices, academics may still feel increased responsibility for ensuring that the artefacts of students' learning (e.g., reports) are academically sound and completed to a high standard as they impact the broader University's reputation with the partner.

Finally, there are challenges of specifying standards appropriate to WIL assessment, including the extent to which WIL activities can be reliably and validly measured and graded (Connaughton et al., 2014; Hodges, 2011; Mackaway et al., 2011; McNamara, 2013). Quality frameworks which govern the provision of higher education sometimes have restrictive policy requirements, which makes this a particularly pertinent issue in WIL (Ferns & Zegwaard, 2014).

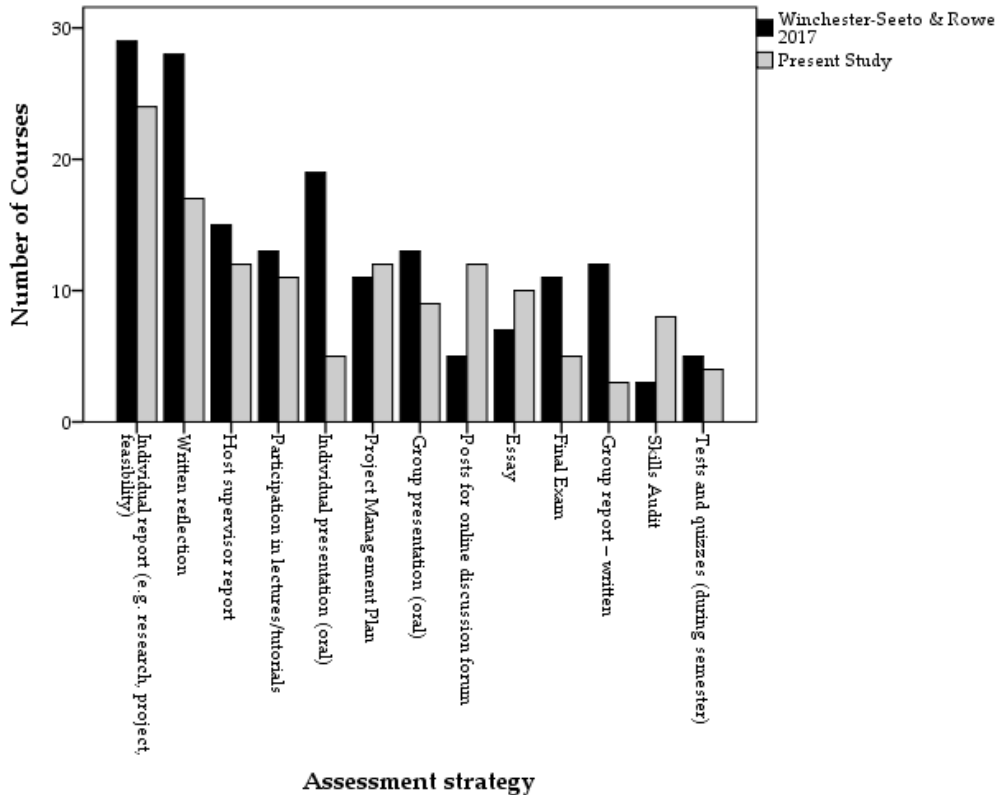


FIGURE 1: A comparison of most common strategies used in WIL courses in the present study with earlier research on WIL courses at the same University<sup>2</sup>

*Aims of the Research*

This paper seeks to fill critical gaps in the existing evidence base on the workload implications of assessment of student learning in WIL. Drawing on findings from a larger study of staff workload associated with the design and delivery of WIL courses, the specific research questions addressed here include: How much time do academics report they spend on assessment of student learning in WIL courses? Does reported workload relating to assessment of student learning differ systematically across different types of WIL delivery modes and, if so, how? What are the key drivers of workload and workload variability in assessment of student learning in WIL?

**METHOD**

The research was undertaken between 2013-15 at a large Australian metropolitan university located in Sydney which offers WIL experiences to students through an institution-wide program called PACE (Professional and Community Engagement). PACE offers a range of WIL experiences which can be undertaken locally, regionally and internationally. Examples include service learning, community development projects, internships, fieldwork,

<sup>2</sup> This figure has been adapted from a table in Winchester-Seeto and Rowe (2017, p. 188). Both that study and the present study utilised audits of course guides to derive this data. The audits were undertaken at the same time (2013-2014) at the same University, so provide a reliable point of comparison.

practicums, and industry panels with project mentoring. These experiences are firmly embedded within a rigorous academic framework and curriculum. The majority of courses are convened by academics located within particular disciplines (e.g., business, statistics, sociology, psychology), with some interdisciplinary courses offered through Faculties and a central PACE office. Participants in the full study comprised academic and non-academic/professional staff involved in the teaching, administration and support of PACE units (courses) at the University.

#### *Survey Instrument and Interviews*

Participants in the study completed a survey which captured information on the amount of time and type of tasks involved in the design and delivery of their WIL course. The survey consisted of two parts. The first was a 'preliminary' survey which captured demographic information about the course and participant, for example, the type and nature of WIL activity that students undertake (e.g., individual or group), the location of the activity and who was responsible for sourcing the activity (e.g., the student or staff). The second was a weekly survey which captured self-reported preparation work and work associated with the delivery of the course (as measured by hours) across nine categories of workload tasks: curriculum development/preparation; curriculum delivery; assessment of student learning; other student-related tasks; partner-related tasks; administration; risk assessment / legal / ethics / insurance; PACE-related research; and PACE-related organisational service and leadership (for a more comprehensive description of the survey instrument, see Clark et al., 2016).

Self-reported measures of workload have a number of limitations including the potential for errors of recall (Bentley & Kyvik, 2012) and presumed tendencies to exaggerate the time spent on tasks (Tight, 2010). While staff may over- (and also under-) estimate and/or misjudge their workload for a variety of reasons (e.g., if they feel it isn't being recognised or valued), there is currently no other feasible way of collecting this data. The survey used in this study to capture data on reported workload was sent to staff each week to minimise the likelihood of recall errors. In addition, participants were provided with an Excel spreadsheet for daily data collection to maximize data accuracy. A number of other strategies were also employed, including the insertion of a summary table at the end of the survey which provided participants with an opportunity to double check the accuracy of their workload hours for each individual task category as well as the total workload across all categories (Rowe, Clark, & Bilgin, 2016). We believe this suite of measures substantially enhanced data validity (see Clark et al., 2016). Nevertheless, to improve the credibility of findings and triangulate data, interviews were conducted with some participants to check and validate self-reported data where workload hour estimates appeared excessive.

During 2013-15 participants completed the surveys via online survey software Qualtrics, with a small number of staff opting to complete surveys via Excel spreadsheets. Prior to the commencement of each teaching period<sup>3</sup> convenors of WIL courses across all departments and Faculties were invited to participate in the research (via email). Those who agreed to be involved were subsequently sent the preliminary survey six weeks prior to the start of the teaching period. They were also asked to provide the details of other staff involved in the delivery of their course – including professional staff, guest lecturers and teaching assistants –

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<sup>3</sup>There are four teaching periods at the university – Sessions 1 and 2 are standard 13 week semesters, while Winter Vacation and Session 3 (Summer school) are condensed offerings.

so those individuals could also be invited to partake in the research. Following completion of the preliminary survey, participants completed a weekly survey over approximately 24 weeks for a standard semester (e.g., Sessions 1 and 2), comprising: about six weeks of preparation work in the lead up to the start of semester, 13 weeks over the formal teaching period/semester, and five weeks including the exam period up until final grades are released to students. Relevant ethics approvals were obtained from the institution where the research was conducted (Human Research Ethics Committee Reference No: 5201200467).

The qualitative component of the research involved semi-structured interviews, with questions focusing around three key areas: highlights/challenges experienced in the teaching, administration or support of the WIL course, workload (e.g., workload models and how well they account for WIL, overall impressions about the amount of time and sorts of tasks involved in WIL versus traditional classroom based courses, factors that may have increased workload during the semester, etc.), and feedback on the survey instrument. Interviews were conducted by a member of the research team at the end of teaching periods to encourage reflection on workload over the preceding semester, and were digitally-recorded and professionally transcribed. Interview transcripts were coded by the research team, first individually and then collectively, using NVivo software Version 11. Data coded in relation to assessment of student learning was subsequently extracted and forms the focus of this paper. Thematic analysis (Boyatzis, 1998) followed an iterative process where categories and themes were revised based on group discussions and re-reading of the transcripts.

#### *Participants*

This was a three-year study, however, quantitative data reported in this paper is based on the first two years of data collection (reflecting the stage of analysis the research team is at currently), with qualitative data drawn from across all three years. Twenty course convenors (f = 15, m = 5) involved in the teaching, administration and support of WIL at the University where the research was conducted completed the online survey. A small number of non-academic staff also completed the survey, however, their responses are not included in this analysis, as they were not directly involved in the formal assessment of student learning. In total 34 course offerings were surveyed (eight courses and six participants were surveyed twice or three times). Thirty staff (21 academic course convenors, eight professional staff, one teaching assistant) participated in semi-structured interviews (three opted to participate in a focus group instead) across the longer three-year period. Participants were located across a range of disciplines including psychology, business, arts, science, and information technology.

## RESULTS AND DISCUSSION

These results build on an earlier preliminary analysis of the (self-reported) workload involved in assessing student learning in WIL (Rowe, Bilgin, Clark, & Bista, 2016). Survey data were analyzed using IBM SPSS Statistics version 22, with exploratory analysis revealing assessment of student learning to be by far the single most important contributor to course convenor workload in WIL courses (Figure 2), reflecting what is claimed to also be the case in classroom based teaching (Race & Pickford, 2007). On average assessment took 2.5 hours per student per semester: 150 per cent more than the next most time-consuming task. There was, however, considerable variability between courses with assessment workload ranging from as low as 0.1 hours per student to as high as 6.8 hours. Interestingly the shortest time of 0.1 hours was observed in a discipline-based capstone course with high student numbers (but

where WIL accounted for a relatively small component of course content and assessment) while the course with the highest assessment workload hours (6.8 hours per student per semester) was laboratory-based with less than 20 students. One limitation of our findings is that only course convenor's personally incurred workload for learner assessment was collected and analyzed, so we do not know whether all or just part of the assessments were the course convenor's work. The numerical summaries presented at best reflect the total assessment work being conducted by course convenors, however, if part of the assessment was allocated to other academics or partners (as we know it was in some cases) then we could be underestimating the total workload of learner assessment in WIL.

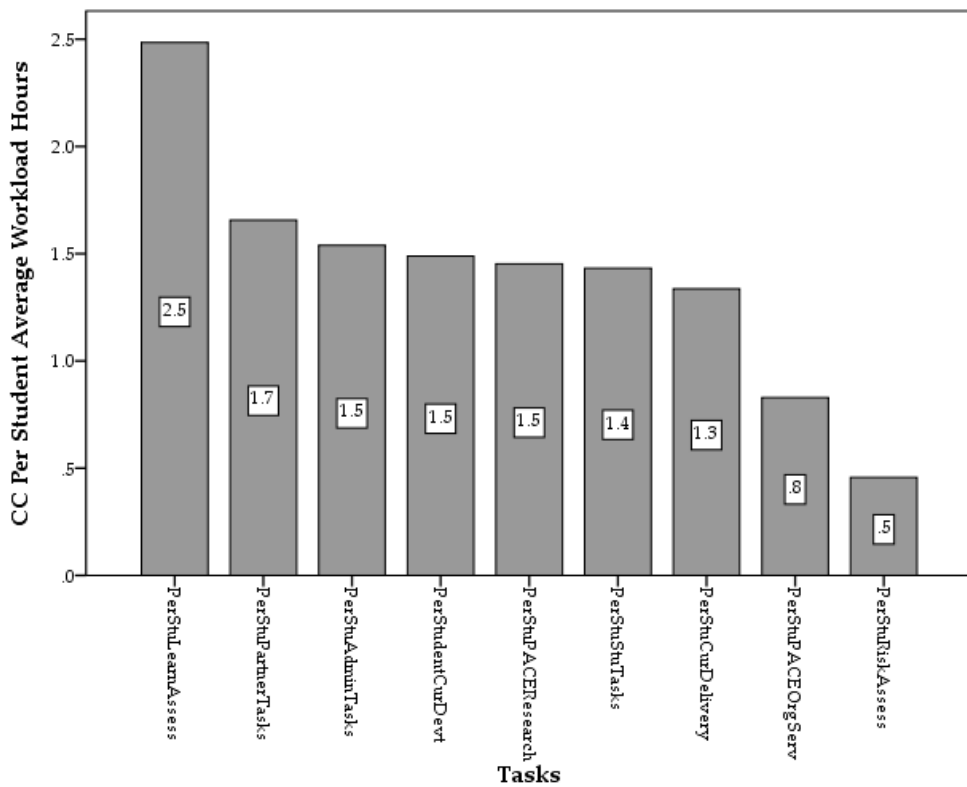


FIGURE 2: Average course convenor workload per student across various tasks.

Discovering that learner assessment on average accounted for the most academic workload hours per student was a somewhat surprising result for the research team as we expected that student and partner related tasks would incur a higher workload given the amount of effort involved in sourcing external partners and organizing activities for students in WIL (Bates, 2010, 2011). That said, a significant number of non-academic staff are employed to support course convenors in the more administrative aspects of partner and student engagement at the study University, which could explain why the latter tasks do not loom as large in academic workloads. Despite assessment making up such a large component of academic workload, as revealed in the survey data, interestingly assessment was mentioned less frequently than other workload tasks in interviews with course convenors. This is possibly because assessment is a key part of any academic course and its labor intensity is perhaps not

seen as particularly remarkable to participants. By contrast, tasks such as relationship development with external partners which are unique to WIL (Bates, 2010; 2011; Peters & Academica Group Inc., 2012) may be more salient in participants' minds: particularly if they view their workload as not being recognized in these areas (Rowe, Bilgin et al., 2016).

Although assessment workload was mentioned less frequently in interviews than other WIL workload tasks, it nonetheless did attract some comment. One course convenor described WIL as inherently "assessment-centric" (Participant 6) while a number of participants expressed the view that current faculty workload models did not make adequate provision for the time required to effectively assess student learning in WIL:

...assessment takes a lot [of time] and cannot be done by someone else. So, therefore, the assessment part of it should be allocated properly in my workload so that I can do it. I mean currently I am doing it, but [I'm] taking off the weekends and nights and things like that to be able to cope with it. (Participant 18)

Further analysis of workload across different modes of WIL delivery (Figure 3) revealed that assessment related workload (as measured by median hours per course/per student) increases quite substantially in the following circumstances, at least at this particular University: when students partake in individual rather than group activities (such as an internship/individual projects); when partner/activities are sourced by University staff (rather than by students themselves); when WIL activities are located off-campus; and when a mixture or block mode of delivery is chosen (as opposed to a periodic format, e.g., weekly lectures, tutorials or seminars). The differences in medians were either twice or more compared to the alternative (e.g., if students sourced the activity, assessment per student per course was 1.3 hours compared to 2.6 hours if staff sourced the activity). Some possible explanations for these differences are canvassed below.

#### *Individual versus Group WIL Activities and Assessments*

The 'individualized' nature of WIL (including assessment) was identified in an earlier phase of the study and in other literature (e.g., Winchester-Seeto & Rowe, 2017) as a key driver of workload which differentiates WIL from classroom-based teaching (Rowe, Clark, Bilgin, & Cantori, 2014). In assessment, this can be due to a number of factors including the need to assess a diverse range of quite individualized WIL activities, reflecting *inter alia*, the variability of students' different WIL engagements. As one of the study participants puts it:

... the nature of the activities are very individual, whereas in a traditional unit you could group students. So you could have 100 students and work on something that would apply to the 100 students. In this case [i.e., WIL] each student is different. Even if they're working in a group they're different. (Participant 8)



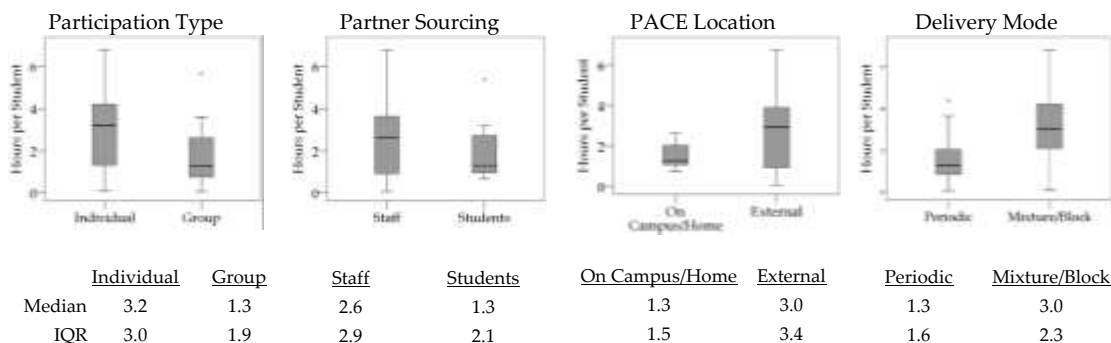


FIGURE 3: Distribution of course convenors' learning assessment workload hours per student by course attributes (individual versus group activities and assessments, staff versus student sourcing of partner(s), on or off campus location of WIL activity, and periodic or other types of delivery).

This impacts assessment workloads in a number of ways. For example, participants mentioned the increased time and effort involved in assessing disciplinary content not necessarily familiar to course convenors and/or content that does not cover a common core of information:

...each student by then is the expert in the project and we, by definition, are less expert because we haven't been there, done that... In order to respect their work and assess it, it actually requires us to work very hard in understanding what it is they've just done and that's quite a different business to marking an essay where presumably most of us will have a reasonable working knowledge of the essay question or the questions. (Participant 11)

In addition, the constant 're-jigging' of assessments from one session offering of a course to another in some forms of WIL makes it difficult to create efficiencies because "everything is a new trip around the gold fish bowl" (Participant 11). Even long-term partnerships can require students to engage in different WIL activities each semester/year, and, therefore, contribute to ongoing work associated with the modification of assessment tasks to better cater for the type of learning in which students are engaged.

*Staff versus Student Partner-Sourcing, Location of WIL Activity, and Delivery Mode*

The importance of long term partnership commitments with industry and community partners in many forms of WIL also helps to explain much of the increased workload associated with assessment of University-sourced WIL activities and those located off campus (most of which are delivered in block or mixed mode). External partner involvement in WIL has previously been identified as a factor potentially increasing assessment workloads (Bates 2010, 2011), but this is frequently seen as either a consequence of the need for ongoing contact with industry partners to ensure the timely return of completed industry-based assessments (Bates, 2010) and/or the time spent in equipping and supporting the industry partner to make assessments of students' professional competence in the first place (McNamara, 2013). While there was some evidence of this happening in the current study, the much more important driver of increased assessment workloads in this regard stemmed from course convenors'

desire to ensure that external partners were satisfied with the quality of student performance and deliverables. This was particularly the case when the convenor's and/or University's relationship with the partner was long-term rather than a transactional 'one-off'. The importance of maintaining these partnerships made the assessment of student learning a particularly 'high stakes' activity in such circumstances (Rowe, Bilgin et al., 2016).

The importance of having high quality assessment to both meet partner expectations and avoid reputational risk (for the University and its partners) was mentioned by many participants who reported a consequent sense of increased responsibility and pressure (and possibly higher workloads) relating to WIL assessments. For example, one participant described the "additional stress" she felt in convening her WIL course, as she was "conscious all the time that they [students] had to do good stuff" in order not to "let the clients down" (Participant 7). With project outcomes and assessment tasks often tied to business deliverables/outputs for partners and clients, there was also a view that a range of high-quality and/or frequent, staggered assessment tasks were needed to scaffold student learning, monitor student progress and ultimately deliver quality outcomes:

it takes ages to read through their reflections, but then again [if "we...chop some of the assessment tasks"] we won't get the same quality of feedback that we are getting currently to identify how we can help them [the students]. (Participant 18)

A number of participants also reported that the "high stakes" nature of partner-related activities and assessment tasks in WIL caused considerable stress and anxiety for some students:

...there is a lot of pressure on students...some students love it and step up to the plate and some students, it completely freaks them out ...I had one student who had a social phobia kind of thing so had suddenly realized in Week 11 that she wasn't going to be able to do an interview or whatever...It's just very, very different from [a] library assignment or even if we'd done something but there wasn't this expectation of community presentation of it. (Participant 16)

Management of students' reactions to such incidents can increase staff workloads, which can be seen as another (indirect) impact of the involvement of external partners in WIL-related assessment tasks.

#### *Other Factors Driving High Assessment Workloads in WIL*

Respondents also identified a range of other considerations that increased the workload associated with assessment in WIL, some of which have previously been identified in the literature - such as the complexities involved in assessing whole person learning. As one course convenor pithily observed, contrasting the nature of the WIL course they taught with classroom-based forms of learning:

Their [the students'] previous courses would focus characteristically on various topics in statistics, maybe even various techniques in statistics, and what we focus on here is the process of becoming, and even being, a statistician. So there's an ontological dimension to what we're doing in this unit. (Participant 5)

Designing an assessment structure for a course that enables the assessment of student development along these lines is not a straightforward task.

Similarly, assessing student reflections contributed to the volume and complexity of assessment workload in WIL:

...trying to assess reflection, I think is time-consuming because it's not clearly defined ... - we're talking about process here, not content, but you get caught up in subjective biases and all sorts of things. (Participant 9)

While the complexity and challenges of using reflection in WIL are noted in the literature (e.g., Mackaway et al., 2011), to our knowledge no explicit links have previously been made regarding the impact of reflection on academic workload, although in a related comment Bates (2011) acknowledges that reflecting on real world experience requires more student/staff contact than other courses.

Another factor increasing assessment-related workloads was the time involved in providing high quality and timely feedback to students on their assessment tasks, which at least two WIL course convenors viewed as a central part of their role:

the feedback - that's what the students - that was what built the relationship with the students really early - between themselves and with me... Getting feedback - honest feedback - from me and also getting to know the students...that's my role - convening the unit. More than organising the industry partner...the feedback is really why I'm here. (Participant 29)

Both feedback and reflection are issues that impact on assessment more generally, that is, outside of WIL (e.g., Barret & Barret, 2008; McAllister & Hauville, 2017).

On the positive side, while assessment in WIL is perceived to be more time consuming than that associated with regular classroom teaching, its distinctive nature also has intrinsic rewards. Both the insights into student learning and development gained from assessing student learning in WIL, and the diversity and quality of student work were mentioned by participants as making the related assessment workload more enjoyable:

It's time consuming, but it [regular assessments involving student online posts] gave me the most fantastic insight into what was going on. Their [students'] experiences, what they were learning, the changes through the process. (Participant 7)

Marking, it's not easy but it's enjoyable. If you have one assignment, the answers are there, you have a model answer: marking is easy, but it's not enjoyable. When you have different projects [as is often the case in WIL], I mean you get excited reading different things all the time. (Participant 18)

Finally, there was a perception by some staff that WIL assessment didn't fit neatly within University policies, structures and processes, and that there was a lack of understanding by sections of University management as to the purpose of assessment in WIL and/or the nuances of assessment in different WIL contexts. Inadequate provision for WIL assessment in existing workload models was cited as one example of this disconnect, as were tacit (and in some cases explicit) assumptions about appropriate grade distributions:

Somewhere higher up in the University levels there is a distinct lack of comprehension of why we may get very high grades [in WIL courses] and there's a strange return to some kind of bell-shaped curve where students must be distributed

even though we have officially left that one a long time ago<sup>4</sup>...[University management does] not seem to understand that if you match the student to the workplace and the project you're almost bound to get people who excel and when we invite outside supervisors into the space of grading then we must also listen to what they say and if they say the student is outstanding, the student is outstanding. (Participant 11)

Participant 11 went on to evince that the underlying problem was an inability of some areas of the University to “come to grips with real life work and what it means in assessment terms.” Similar tensions between university policies, structures and processes and the development of quality assessment in WIL have been noted elsewhere in the literature (e.g., Ferns & Zegwaard, 2014; Rowe et al., 2014).

## SUMMARY AND CONCLUSIONS

Anecdotal reports in the extant literature have proposed assessment of student learning as a major driver of workload associated with the delivery of WIL courses and our research strengthens and supports these claims with quantitative evidence. Assessment of student learning was the single most important contributor to reported course convenor workload in the WIL courses surveyed in our study, taking on average 2.5 hours per student per semester: 150 per cent more than the next most time-consuming task in teaching these courses. There was, however, considerable variability in assessment workload between different WIL courses in the study, with those involving individual (rather than group) activities with off-campus partners/activities sourced by University staff resulting in the highest assessment workloads.

Our study reveals several contributing factors which impact staff workload, a number of which reflect the broader challenges of WIL assessment reported in the extant literature, including the individualized nature of assessment in WIL and the complexities of assessing holistic student learning (e.g., Mackaway et al., 2011; McNamara, 2013). We also found that factors thought to be associated with assessment workloads in higher education more generally similarly impacted staff workloads in WIL, such as the complexities of assessing reflection and the time and effort involved in providing high quality feedback to students to support their learning and development.

Our study also found evidence supporting claims that external partner involvement in WIL increases assessment workloads (Bates 2010, 2011), but interestingly the apparent driver of this (at least in the current study) has not, to our knowledge, been previously emphasized in the literature. Whereas previous studies have suggested that the extra workload stems from the need to equip and support industry partners to assess students' professional competence (McNamara, 2013) and/or to chase them to ensure the timely return of industry-based assessments (Bates, 2010), our study suggests an alternative explanation resulting from the “high stakes” nature of these (often long-term) relationships with industry partners. The additional responsibility while assessing student work reported by staff in our study was a strong theme. Even in cases where host supervisors were not formally involved in the assessment process, the fact that student work was performed for and/or presented to external partners meant a higher level of diligence was required of academics (and often times students) which in turn impacted assessment-related workloads. One possible

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<sup>4</sup> NB. The University's policies in this area shifted toward standards-based assessment many years ago.

explanation for this divergence from findings reported elsewhere in the literature is that the WIL courses surveyed in our study are typically *not* competency based, so the issues identified by Bates (2010, 2011) and McNamara (2013) may not be as salient in the minds of course convenors at this University. Whether or not that explains the discrepancy, it is apparent that the importance of ensuring sustainable relationships with industry partners can be a salient factor impacting academic assessment workloads in WIL.

#### *Implications and Recommendations for Practice and Policy*

Providing effective feedback to students through formative assessment is particularly challenging in WIL because of workload demands (Palermo et al., 2014), and, as discussed above, our study suggests that's particularly the case with certain types of WIL engagement. The problem is exacerbated by the lack of recognition of the tasks and time required to deliver quality WIL in many academic workload models: both in relation to assessment and more broadly. Adapting these workload models to more adequately reflect the realities of WIL is required and, as our results indicate, this needs to be done in a way that is sensitive to the diversity of WIL modes of delivery. In an encouraging development, in part prompted by the current study, academic workload models in two Faculties at the study University have recently been amended along these lines.

But, as we have previously observed, adjustment of resourcing models, while vital, is not the only available policy and practice response. "Better understanding the key drivers of workload for different types of WIL can also open other avenues for addressing the problem" (Rowe et al., 2014, p. 40). To that end, an important question arising from the present study is: how to create efficiencies in assessment which still (and most importantly) provide quality feedback to students, but reduce some of the excessive workload involved in WIL?

The results reported here indicate that course convenor assessment workload is reduced when group-based rather than individual assessments are utilized. Group assignments may also offer other benefits such as promoting different dimensions of student learning: through participation in teamwork and peer feedback, students may learn about a broader range of skills and knowledge than they would on their own. However, group assignments are not a universally applicable option in certain forms of WIL, such as individual internships, although even in that mode they can be applied in some circumstances (e.g., students engaging in assessable dialogical reflections on the internship experience with their peers). It is also important to acknowledge that group assignments can be more time-intensive to design and potentially contribute to intra-group conflict, requiring additional interventions from the course convenor which in turn exacerbates staff workload albeit outside the assessment domain. Integrating debriefing and other pedagogical strategies into WIL may assist to flag such issues early on, thereby reducing time spent on managing issues retrospectively. While recognizing that they are by no means a panacea, there does appear to be scope for considering how the use of group assessment tasks can be expanded in WIL.

Workplace assessments by host supervisors and online posts were also common assessment methods used in the courses surveyed. Incorporating regular online posts as part of assessment is useful for monitoring students (particularly when they are located off-campus), however, the workload challenges of providing feedback in this way have been noted in other literature (Tyler, Ryan, & Lamont-Mills, 2015). Ferns (2011) similarly reports on the time-consuming nature of providing feedback via email, which can be difficult to quantify as it usually happens while staff are working on other tasks. The use of peer assessment methods

and of technology to support assessment practices can assist here (Macquarie University, n.d.), although neither strategy is wholly unproblematic (*ibid*). Incorporating host supervisor assessments is another strategy that can yield considerable benefits to student learning, although it may not necessarily reduce academic workload (McNamara, 2013). In some cases formative feedback can only be provided by academics, particularly in cases where host supervisors do not have expertise in the area that students are undertaking their WIL activity. Nonetheless, incorporating partner perspectives on at least some dimensions of student learning has an important place in a multi-dimensional WIL assessment regime.

Another area of note is the high number of assessment tasks used in some of the WIL courses surveyed. While this was considered desirable (and in some cases necessary) by course convenors to provide frequent quality feedback to students, monitor their progress and shape high quality outputs for partners, it can come at a cost in terms of higher workload (both for staff and students). This is especially the case where WIL is deeply embedded and/or makes up a major component of the course (i.e., where most assessment tasks in the course are specifically WIL-related). This is a tricky issue to address as some other less time consuming assessment methods such as exams are generally not the most effective measures of student learning in WIL (Bilgin et al., 2011; Winchester-Seeto & Rowe, 2017). Where a high number of assessments is needed, academics might consider using tasks that measure more than one aspect of learning and/or incorporate more peer and self-assessment. However, for this to work, development of student skills needs to be scaffolded which may in turn also contribute to other dimensions of workload (Mackaway et al., 2011). The pros and cons of these different assessment strategies need to be weighed and sufficient time for experimentation in assessment allowed for and encouraged to support development of the most appropriate and robust assessment strategies for particular WIL courses (Winchester-Seeto & Rowe, 2017).

Staff expertise, connectedness, experience and recognition are other important areas needing consideration. One course convenor (Participant 25) who held a senior position within the University commented that, without his level of authority, it would not be possible to navigate the institutional relationships and systems that enabled him to invest the very significant amount of time required to teach his WIL course to a quality standard. He went on to emphasize the need for experienced academics to convene WIL courses due to their complex and “demanding” nature, noting that he would be “hesitant to give [teaching a WIL course] to a junior person” because the additional workload it involved could be “disruptive to their career trajectory.” This cautionary comment highlights the importance of university workload models and promotion policies for academics providing better recognition of the professional and institutional value of teaching WIL courses.

In sum, there are a variety of ‘balancing acts’ that need to be negotiated at individual, departmental and institutional level if the workload involved in assessing WIL is to be sustainably managed. This is particularly so given the increasing embrace of this form of learning both in Australia and internationally (e.g., Patrick et al., 2008). In such circumstances, ensuring the scalability and sustainability of WIL courses more generally is a pressing issue that needs to be addressed in a multidimensional fashion: in pedagogy, policy, practice and research.

#### *Future Research*

There are a number of questions arising from our study that lend themselves to future research. Firstly, there is a need for more in-depth evaluation of the different modes of

assessment currently used (and potentially applicable to) WIL both to enhance the quality of student learning it promotes and (where possible) to reduce the amount of unrecognised academic workload it entails. Second, it would be valuable to understand the impact of more collaborative modes of assessing student learning through WIL on the workloads of all parties, for example, through team-teaching and greater involvement of students and partners in the design and execution of assessment tasks (McNamara, 2013). Third, as indicated above, some Faculties at the study University have recently adjusted their academic workload models in an attempt to better recognize and reflect the diversity of WIL and it will be of great interest to evaluate whether these adjustments achieve their desired ends. More generally, other aspects of resourcing WIL would also benefit from investigation in future research. This includes an assessment of the total operating costs (and benefits) of supporting WIL and an analysis of how (including by whom) these costs are being met.

## REFERENCES

- Acton, R. D., Chipman, J. G., Lunden, M., & Schmitz, C. C. (2015). Unanticipated teaching demands rise with simulation training: Strategies for managing faculty workload. *Journal of Surgical Education*, 72(3), 523-529. doi: 10.1016/j.jsurg.2014.10.013
- Barrett, L., & Barrett, P. (2008). *The management of academic workloads: Full report on findings*. London: Leadership Foundation for Higher Education. Retrieved from: <http://usir.salford.ac.uk/691/1/Barrett%2520long%2520report%2520links%2520final.pdf>
- Bates, M. (2010). *Work-integrated learning: Workload and recognition – review*. Brisbane: Griffith University. Retrieved from: <http://acen.edu.au/wp-content/uploads/2013/06/Work-Integrated-Learning-Workload-and-Recognition-Review.pdf>
- Bates, M. (2011). Work-integrated learning workloads: The realities and responsibilities. *Asia-Pacific Journal of Cooperative Education*, 12(2), 111–24.
- Bentley, P. J., & Kyvik, S. (2012). Academic work from a comparative perspective: A survey of faculty working time across 13 countries. *Higher Education*, 63(4), 529–47. doi:10.1007/s10734-011-9457-4
- Bilgin A., Jersky B., & Petocz P., Wood G. (2011). Reflections on designing a statistical consulting capstone unit. *IASE Satellite Conference on Statistics Education and Outreach*, Dublin, Ireland, 18-19 August.
- Bilgin, A. A., Newbery, G., & Petocz, P. (2015). Engaging and motivating students with authentic statistical projects in a capstone unit. In M.A. Sorto (Ed.), *Advances in statistics education: Developments, experiences and assessments. Proceedings of the Satellite conference of the International Association for Statistical Education (IASE)*, 22 – 24 July 2015, Rio de Janeiro, Brazil.
- Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. London, UK: Sage.
- Brodie, P., & Irving, K. (2007). Assessment in work-based learning: Investigating a pedagogical approach to enhance student learning. *Assessment & Evaluation in Higher Education*, 32(1), 11-19. doi: 10.1080/02602930600848218
- Bulot, J. J., & Johnson, C. J. (2006). Rewards and costs of faculty involvement in intergenerational service-learning. *Educational Gerontology*, 32(8), 633–45. doi:10.1080/03601270500494121
- Clark, L., Rowe, A., Cantori, A., Bilgin, A., & Mukuria, V. (2016). The power dynamics and politics of survey design: Measuring workload associated with teaching, administering and supporting work-integrated learning courses. *Studies in Higher Education*, 41(6), 1055-1073. doi: 10.1080/03075079.2014.966071
- Connaughton, J., Edgar, S., & Ferns, S. (2014). Assessing WIL. In S. Ferns (Ed.), *HERDSA guide: Work-integrated learning in the curriculum* (pp. 27-31). Milperra: Higher Education Research and Development Society of Australasia.
- Emslie, M. (2011). Where's WIL? Including work-integrated learning in descriptions of what it is that academics do. *Journal of Cooperative Education & Internships* 45(1), 34–44.
- Ferns, S. (2011). Allocating academic workload for student consultation assessment and feedback. In J. D. Yorke (Ed.), *Meeting the challenges: Proceedings of the Australian Technology Network Assessment Conference* (pp. 90-97). Perth, 20-21 October, 2011.

- Ferns, S., & Moore, K. (2012). Assessing student outcomes in fieldwork placements: An overview of current practice. *Asia-Pacific Journal of Cooperative Education*, 13(4), 207-224.
- Ferns, S., & Zegwaard, K. E. (2014). Critical assessment issues in work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, 15(3), 179-188.
- Hodges, D. (2011). The assessment of student learning in cooperative and work-integrated education. In R. K. Coll and K. E. Zegwaard (Eds.), *International Handbook for Cooperative and Work-integrated Education* (2<sup>nd</sup> ed.). Lowell, MA: World Association for Cooperative Education.
- López-Pastor, V. M., Pintor, P., Muros, B., & Webb, G. (2013). Formative assessment strategies and their effect on student performance and on student and tutor workload: the results of research projects undertaken in preparation for greater convergence of universities in Spain within the European Higher Education Area (EHEA). *Journal of Further & Higher Education*, 37(2), 163-180. doi: 10.1080/0309877X.2011.644780
- Mackaway, J. A., Winchester-Seeto, T., Coulson, D., & Harvey, M. (2011). Practical and pedagogical aspects of Learning through Participation: The LTP Assessment Design Framework. *Journal of University Teaching & Learning Practice*, 8(3), 5, 1-16.
- Macquarie University (n.d.). *Using technologies to support assessment*. Sydney, Australia: Learning & Teaching Centre.
- McAllister, L., & Hauville, K. (2017). Striving for sustainability: ePortfolio pedagogy in Australian higher education. In J. Rowley (Ed.), *ePortfolios in Australian universities*. Singapore: Springer Science+Business Media. doi: 10.1007/978-981-10-1732-2\_2
- McNamara, J. (2013). The challenge of assessing professional competence in work integrated learning. *Assessment & Evaluation in Higher Education*, 38(2), 183-197.
- Orrell, J. (2011). *Good practice report: Work-integrated learning*. Strawberry Hills: Australian Learning and Teaching Council. Retrieved from <http://www.acen.edu.au/resources/docs/WIL-Good-Practice-Report.pdf>
- Palermo, C., Beck, E. J., Chung, A., Ash, S., Capra, S., Truby, H., & Jolly, B. (2014). Work-based assessment: qualitative perspectives of novice nutrition and dietetics educators. *Journal of Human Nutrition and Dietetics*, 27(5), 513-521.
- Patrick, C.-j., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. (2008). *The WIL [Work Integrated Learning] report: A national scoping study [Australian Learning and Teaching Council (ALTC) final report]*. Brisbane, Australia: Queensland University of Technology.
- Peach, D., Ruinard, E., & Webb, F. (2014). Feedback on student performance in the workplace: The role of workplace supervisors. *Asia-Pacific Journal of Cooperative Education*, 15(3), 241-252.
- Peters, J., Academics Group Inc. (2012). *Faculty experiences with and perceptions of work-integrated learning (WIL) in the Ontario postsecondary sector*. Toronto: Higher Education Quality Council of Ontario. <http://www.ontla.on.ca/library/repository/mon/26003/316043.pdf>
- Race, P., & Pickford, R. (2007). *Making teaching work: Teaching smarter in post-compulsory education*. Los Angeles, CA: Sage Publications.
- Rowe, A., Bilgin, A., Clark, L., & Bista, S. (2016). Assessment of student learning in WIL: Workload implications for university staff. In M. Harvey & A. Rowe (Eds.), *Proceedings of the Australian Collaborative Education Network (ACEN) National Conference – “WIL 2020: Pushing the Boundaries”* (pp. 79-82). Sydney, 28-30 September, 2016.
- Rowe, A., Clark, L., & Bilgin, A. (2016). Evaluation of a three-year study investigating staff workload associated with CWIE delivery: Implications for research and practice. In K. E. Zegwaard, M. Ford & N. McRae (Eds.), *Refereed Proceedings of the 2nd International Research Symposium on Cooperative and Work-Integrated Education* (pp. 181-188). World Association for Cooperative Education (WACE), Victoria, British Columbia, Canada, 12-15 June, 2016.
- Rowe, A., Clark, L., Bilgin, A., & Cantori, A. (2014). “The only rule is that there are no rules”: Understanding the impact of WIL on staff workload. In K. Moore (Ed.), *Work-integrated learning: Building capacity - Proceedings of the 2014 ACEN National Conference* (pp. 37-40). Tweed Heads, 1-3 October, 2014.
- Sachs, J., & Clark, L. (Eds.) (2017). *Learning through community engagement: Vision and practice in higher education*. Singapore: Springer Science+Business Media.



- Smigiel, H., Macleod, C., & Stephenson, H. (2015). Managing competing demands in the delivery of workintegrated learning: An institutional case study. In M. Kennedy, S. Billett, S. Gheradi & L. Grealish (Eds.), *Practice-based learning in higher education: Jostling cultures* (pp. 159-172). Dordrecht Heidelberg: Springer.
- Smith, C., Ferns, S., & Russell, L. (2014). *The impact of work integrated learning on student work-readiness: Final report*. Sydney: Office for Learning and Teaching. Retrieved from <http://www.olt.gov.au/project-assessing-impact-work-integrated-learning-wil-student-work-readiness-2011>
- Tight, M. (2010). Are academic workloads increasing? The post-war survey evidence in the UK. *Higher Education Quarterly*, 64(2), 200–215. doi:10.1111/j.1468-2273.2009.00433.x
- Tynan, B., Ryan, Y., Lamont-Mills, A. (2015). Examining workload models in online and blended teaching. *British Journal of Educational Technology*, 46(1), 5–15. doi: 10.1111/bjet.12111
- Winchester-Seeto, T., & Rowe, A. (2017). Assessment strategies for new learning. In J. Sachs & L. Clark (Eds.), *Learning through community engagement: Vision and practice in higher education* (pp. 185-197). Singapore: Springer Science+Business Media. doi: 10.1007/978-981-10-0999-0\_12
- Yorke, M. (2011). Work-engaged learning: Towards a paradigm shift in assessment. *Quality in Higher Education*, 17(1), 117–130.



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